## PLANNING FOR DEFENCE

## IMPLICATIONS OF THE HYDROGEN BOMB

TO THE EDITOR OF THE TIMES

Sir,-The further one thinks into the problem created by the hydrogen bomb and its implications, the more questionable it becomes whether present defence for planning is realistic. At the same time to the effort brings a deepening sympathy for mo the planners because of the immense diffi- pic culty of bridging the gulf between custo- The mary ideas of warfare and the superrevolutionary effects of atomic power.

culty of bridging the gulf between customary ideas of warfare and the super-revolutionary effects of atomic power.

It is very hard to relate warfare as known in the past to warfare where atomic bombs, missiles, and shells can be employed in hundreds or thousands, and where thermonuclear (hydrogen) bombs each measured in millions of tons of high explosive are also available in quantity. (The original Hiroshima bomb was equivalent to a mere 20,000 tons of T.N.T.) Once such weapons are used it is scarcely conceivable that the war could continue, even in a "broken-backed" form. The conduct of war is "organized action," and this collapses where chaos reigns.

In the case of this country, where the vital targets are closely grouped, it has been estimated that as few as five thermo-nuclear bombs might suffice, and that 10 would almost certainly suffice to blot out all its main centres of industry—comprising half the population. Still fewer would suffice to paralyse the vital centres of France, Belgium, and Holland. Moreover, paralysis, and collapse, can be produced by moral effect even where destruction does not take place.

To prevent such a catastrophe, air defence would have to attain nearly 100 per cent. effectiveness of interception at the outset, and that is almost inconceivable. The most optimistic estimate from any authoritative quarter is that "one out of every four Soviet bombers" might be intercepted. In any case there is no means in existence or in prospect of intercepting atomic missiles. By 1945 the Germans had successfully test-fired a V2-type rocket with a range of about 400 miles, and had worked out plans to extend it—just before their research station at Peenemunde was captured by the Russians. The range of the V1 type, then only 150 miles, has already been trebled and its accuracy improved. London is 2450 miles from the Russian positions in Germany, Paris less than 400 miles, while Brussels, Antwerp, and Amsterdam are barely 250 miles distant.

Hence, the only real defence is the deterrent power of

on picking out the proverbial "needle in a haystack." That conclusion applies both ways.

Unfortunately a grave risk remains that an atomic war might develop unintentionally. The authorities agree in saying it would be "mutual suicide," yet present defence planning runs contrary to that conclusion. The preparation and training of the western forces are now to be based on the use of "tactical" atomic weapons, with the idea of counterbalancing the potential attacker's greater number of men. The idea has attractions on the surface, but on closer examination the advantages fade.

It is hard to draw, and even harder to maintain, a dividing line between "tactical" and "strategical" action with such weapons, so it is extremely doubtful if they could be used without precipitating all-out war, with hydrogen bombs. In such a war there would be little value in the armies (with tactical air forces) which the North Atlantic Treaty Organization is building up for the defence of western Europe. These could not maintain a defence once their homeland sources of supply were wrecked—and if their homelands were annihilated their purpose would have vanished. vanished.

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A massive attack by "conventional" forces only has become very unlikely. For it will be obvious to a calculating aggressor that the less we are able to check it with similar forces the more likely we should be driven to retort with hydrogen bombs. The value of armies lies in providing a non-suicidal defence against attack. To arm them with atomic weapons is to destroy the case for maintaining them. In that form they would increase the risks of spreading a local conflict into a universal conflagration without diminishing the fatal prospect.

The soldiers responsible for defence planning naturally desire the maximum possible insurance, and it is not their responsibility to judge whether the apparent addition offered by nuclear weapons is outweighed by the increased risk of homeland chaos and collapse. In accepting the argument for such added insurance the statesmen may hopefully imagine that they can restrain its use until the need is clear. This is a frail hope.

The supreme fact of the hydrogen bomb era is that war has become palpably suicidal. Here is the real deterrent to the kind of attack that Supreme Headquarters, Allied Powers, Europe, is planning to meet, and it embraces all contingencies except guerrilla-type action combined with political subversion, or local advances in remote non-vital areas. To concentrate on preparing for the improbable is a waste of our economic resources—dancing to the Communists' tune in the self-exhausting way they wish us to do.

For the lesser, more likely, contingencies we need an extensive gendarmerie backed by "fire-brigade" forces of high efficiency and mobility, in constant readiness. Short-service conscripts are not suited to such tasks. By reorientating our defence preparations on the basis of the probable, great savings could be achieved.

The maintenance of the hydrogen bomb deterrent to a "Great War" has to be the primary charge on the defence budget. It calls for a strategic air force of superlative technical quality and performance, but not of 1939-45. War quantit